

**PATENT APPLICATION**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q93036

Thierry CHOLLEY, et al.

Appln. No.: 10/567,564

Group Art Unit: 1797

Confirmation No.: 6629

Examiner: Randy Boyer

Filed: January 8, 2007

For: HYDROTREATING AND OR HYDROCRACKING CATALYST OF HYDROCARBONS  
AND PREPARATION THEREOF

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.41, Appellants respectfully submit this Reply Brief in response to the Examiner's Answer dated August 11, 2011. Entry of this Reply Brief is respectfully requested.

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**STATUS OF CLAIMS**

Claims 1-5, 11-13 and 17-23 are pending in the present application.

Claims 6-10 and 14-16 are canceled.

Claims 1-5, 11-13 and 17-22 are rejected.

Claim 23 is withdrawn from consideration.

**GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

A first issue on appeal is whether the Office improperly rejected Claims 1-5, 11-13, 17-20 and 22 under 35 U.S.C. § 102(b) as allegedly anticipated by or, in the alternative, under 35 U.S.C. §103(a) as allegedly obvious over Vangermain (U.S. Patent No. 3,526,645) as evidenced by Maskill (Howard Maskill, Mechanisms of Organic Reactions, New York, Oxford University Press Inc., 1996, p.62).

A second issue on appeal is whether the Office improperly rejected Claims 1, 5, 11-13, 17-19, 21 and 22 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson (U.S. Patent No. 4,693,991) in view of Mansfield (U.S. Patent No. 5,648,305).

A third issue on appeal is whether the Office improperly rejected Claims 2-4 and 20 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bjornson in view of Mansfield and Maskill.

### **ARGUMENT**

Further to the arguments submitted in the Appeal Brief filed May 23, 2011, Appellants submit the additional arguments below in response to the Examiner's Answer ("the Answer") dated August 11, 2011.

**The Examiner's characterization of Vangermain is inaccurate, because Vangermain does not teach or suggest a base refractory oxide, as claimed, which contains (1) at least one metal of group VIII, (2) at least one metal of group VIB, and (3) at least one organic compound with at least two oxime groups.**

At page 5, paragraph 5 of the Answer, the Examiner states that Vangermain discloses a catalyst comprising (a) a medium with a base of at least one refractory oxide (aluminum oxide, silica gel), wherein the at least one refractory oxide contains 0.1 to 3% by weight of at least one metal of group VIII, and 0.1 to 3% by weight of at least one metal of group VI, and (b) an oxime (e.g., dimethylglyoxime).

Appellants continue to disagree with the Examiner's characterization of Vangermain. Appellants would like to reiterate, that even if *arguendo*, compound A and compound B of Vangermain were to be combined, as suggested by the Examiner, the resulting composition would only include two components - compound A having a metal selected from Groups IV and VI and a compound B having a metal selected from Groups VII and VIII. Vangermain does not teach or suggest the addition of another organic compound (containing at least two oxime groups) in addition to compounds A and B.

The presently claimed catalyst requires a base refractory oxide, which contains (1) at least one metal of group VIII, (2) at least one metal of group VIB, i.e., the medium contains the refractory oxide and at least two metals, and (3) at least one organic compound with at least two

oxime groups. In other words, the presently claimed catalyst has **three** basic components as part of the refractory base.

While the Examiner relies on the nickel dimethyl glyoxime taught in Vangermain, this compound only satisfies one of the three components of the presently claimed invention, i.e., (1) the compounds of metals of group VIII. Similarly, compound A of Vangermain would only satisfy the limitation of component (2), i.e., a compound containing a metal of Group VIB. Vangermain does not teach or suggest that the above two compounds are combined with a third compound, i.e., the presently claimed at least one organic compound with at least two oxime groups. Alternatively, if the Examiner maintains that the nickel dimethyl glyoxime is representative of the presently claimed at least one compound with at least two oxime groups, Appellants would like to point out that in such a case, combination of compounds A and B of Vangermain would not include element (1) of the presently claimed catalyst, i.e., at least one Group VIII metal.

In other words, the combination of compounds A and B of Vangermain only results in a composition having **two** components, compared to the presently claimed invention having **three** components.

**The Examiner's characterization of Mansfield is inaccurate, because Mansfield does not teach or suggest an one organic compound with at least two oxime groups.**

At the paragraph bridging pages 13 and 14 of the Answer, the Examiner characterizes Mansfield as disclosing a broad class of "oximes." Appellants would again like to point out that at column 4, lines 34-35 and, Mansfield only generally discloses the use of oximes. Furthermore, none of the examples at column 4, lines 40-49 include compounds that comprise

two oxime groups, as presently claimed. Therefore, Mansfield does not include a general teaching regarding all possible oximes, but is instead directed to the particular oxime-group containing compounds that are listed therein.

**CONCLUSION**

For the above reasons as well as the reasons set forth in Appeal Brief, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,

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